COURSE SYLLABUS

Introduction to Time Series – Theory and Practice

Spring Semester, 2009 – Tuesdays 10.00 – 11:00am in Damen Hall, Room 321
Prerequisites: STAT304/404 and some exposure to statistical methods; suggested co-requisite: STAT305/405.
Text: Brockwell, P.J. and Davis, R.A., *Introduction to Time Series and Forecasting*, Second Edition, ISBN 978-0-387-95351-9.

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Office Hours: Tuesdays 11.10am – 12.30pm and 2.30 – 3.30pm; Thursdays 11.10am – 12.30pm; and by appointment
Course Web Page: **http://webpages.math.luc.edu/~tobrien/courses/timeseries/course-homepage.html**

Course Overview

This course provides an introduction to the theory and practice of time series methods, with topics chosen from both the time and frequency domain literature. Course topics include an overview of AR and MA methods, stationary processes, ARMA methods, spectral analysis, modeling and forecasting for ARMA models, nonstationarity and seasonal time series methods, differencing, unit roots and tests.

Grading Scheme

Homework	37.5 %
Participation	37.5 %
Course Paper	25 %

Assignments are given on the Course Web-page.

Final course (letter) grades will be awarded according to the following grading scheme:

	[92.5 , 100] = A	[90.0 , 92.5) = A-
[87.5 , 90.0) = B+	[82.5 , 87.5) = B	[80.0 , 82.5) = B-
[77.5 , 80.0) = C+	[72.5 , 77.5) = C	[70.0 , 72.5) = C-
[67.5 , 70.0) = D+	[60.0 , 67.5) = D	[0.0 , 60.0) = F

Participation

Students are expected to attend all classes and to actively participate in classroom discussion. It is required that students will read the lecture material before class so as to better benefit from the class lecture and discussion.

Computing

Students will analyze data sets using the ITSM, Minitab and SAS software packages, although no previous exposure to these packages will be assumed. Students may also use a calculator (such as a TI-84).